Climate Change and Human Health Literature Portal

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A decision inventory approach for improving decision support for climate change impact assessment and adaptation

Abstract:

Assessing and adapting to the impacts of climate change requires balancing social, economic, and environmental factors in the context of an ever-expanding range of objectives, uncertainties, and management options. The term decision support describes a diverse class of resources designed to help manage this complexity and assist decision makers in understanding impacts and evaluating management options. Most climate-related decision support resources implicitly assume that decision making is primarily limited by the quantity and quality of available information. However, a wide variety of evidence suggests that institutional, political, and communication processes are also integral to organizational decision making. Decision support resources designed to address these processes are underrepresented in existing tools. These persistent biases in the design and delivery of decision support may undermine efforts to move decision support from research to practice. The development of new approaches to decision support that consider a wider range of relevant issues is limited by the lack of information about the characteristics, context, and alternatives associated with climate-related decisions. We propose a new approach called a decision assessment and decision inventory that will provide systematic information describing the relevant attributes of climate-related decisions. This information can be used to improve the design of decision support resources, as well as to prioritize research and development investments. Application of this approach will help provide more effective decision support based on a balanced foundation of analytical tools, environmental data, and relevant information about decisions and decision makers.

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Resource Description

Communication: ⊠

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ⊠

audience to whom the resource is directed

Policymaker, Researcher

Early Warning System: ⊠

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

 A focus of content

Exposure : ☒

weather or climate related pathway by which climate change affects health

 Air Pollution, Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Security, Food/Water Security, Temperature

> **Extreme Weather Event:** Wildfires

> **Food/Water Quality:** Biotoxin/Algal Bloom

> **Food/Water Security:** Agricultural Productivity

> **Temperature:** Extreme Heat

Geographic Feature: ☒

resource focuses on specific type of geography

 None or Unspecified

Geographic Location: ☒

resource focuses on specific location

 Global or Unspecified

Health Impact: ☒

specification of health effect or disease related to climate change exposure

 Health Outcome Unspecified

Intervention: ☒

strategy to prepare for or reduce the impact of climate change on health

 A focus of content

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

 Adaptation

Model/Methodology: ☒

type of model used or methodology development is a focus of resource

 Methodology

Resource Type: ☒

format or standard characteristic of resource

 Research Article, Review

☐

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content